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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/698,049

10/30/2003

Michael E. Landry

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EXAMINER

SWIGER III, JAMES L

ART UNIT

PAPER NUMBER

3733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/698,049

Applicant(s)

LANDRY ET AL.

Examiner

James L. Swiger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-11,13-16,18-20 and 123-125 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-11,13-16,18-20 and 123-125 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/7/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 13-16, 17-20, and 125 are rejected under 35 U.S.C. 102(e) as being anticipated by Crozet (US 6,554,834). Crozet et al. disclose a device having a head portion (34), a shank (30), two or more splines (see top portion of Fig. 15) displaced circumferentially around the head of the fastener and that are capable of configuring to a bone fastener ring (see Fig. 14B), and wherein it is functionally capable of rotating relative to the ring, as it is seated in the ring. Crozet et al. further disclose a device wherein the splines may couple with the ring (see Fig. 15), and wherein the splines have projections (see wedge-shaped ends of Fig. 15) and is tapered (see bottom section of a spline in Fig. 15 between spaces 150), and wherein the ring has grooves

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that are capable of fitting splines (see top profile of the ring in Fig. 14b for grooves between the "points" and then view Fig. 15 for how the splines fit between the grooves between the points). It is also cannulated (402).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, and 123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biedermann et al. (US 5,443,467) in view of Crozet et al. '834 Biedermann et al. disclose a device having a head (3) and a shank (2), and wherein the bone fastener (1) is capable of being inserted head first through an opening in the ring (12), (see Fig. 1) and where the fastener is capable of rotating relative to the ring while being seated in the ring (see Fig. 2), and wherein the ring can be inserted and coupled to the collar (see arrangement of Fig. 1). The ring is capable of being inserted through the bottom of the collar (Fig. 2), and when seated in the collar (5), the ring is capable of being compressed against the collar which would cause to be slightly, or at least materially expanded after exertion from the fastener in use to prevent its removal from the collar portion (5).

Biedermann et al. disclose the claimed invention except for a ring with two or

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more seats and a head with two or more splines. Crozet et al. disclose a head with splines and a ring with seats that interfit with the splines. Crozet et al. disclose a device having a head portion (34), a shank (30), two or more splines (see top portion of Fig. 15) displaced circumferentially around the head of the fastener and that are capable of configuring to a bone fastener ring (see Fig. 14B), and wherein it is functionally capable of rotating relative to the ring, as it is seated in the ring. Crozet et al. further disclose a device wherein the splines may couple with the ring (see Fig. 15), and wherein the splines have projections (see wedge-shaped ends of Fig. 15) and is tapered (see bottom section of a spline in Fig. 15 between spaces 150), and wherein the ring has grooves that are capable of fitting splines (see top profile of ring in Fig. 14b for grooves between the "points" and then view Fig. 15 for how the splines fit between the grooves between the points).

The modifications of Crozet et al. *supra* allow for the head of the fastener to have better contact with the ring and thus the collar portion, wherein increased contact and friction allows for better securement of the device and less post-operative shift (Col. 3, lines 45-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Biedermann et al. having at least splines and a ring with seats in view of Crozet et al. to better secure the fastener.

Claim 8-11 and 124 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Biedermann et al. '467 and Crozet et al. '834 in view of Schlapfer (US 6,063,090). The combination of Biedermann et al. and Crozet et al.

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disclose the claimed invention except for a ring that has both grooves and a seat.

Schlapfer discloses a fastener device wherein a chuck (7) considered a ring, has slots both upward and downward (8). In this case the downward slots are being considered the seats, while the upward slots are considered the grooves to interface with the splines. These modifications allow for better compression and extension of the part, so that it has an optimal fit with the screw head in use (Col. 4, lines 26-35).

Biedermann et al. disclose the claimed invention except for a bone fastener head with splines that are capable of interfacing with the ring, are placed circumferentially.

Crozet et al. '834 disclose a head with splines and a ring with seats that interfit with the splines. Crozet et al. disclose a device having a head portion (34), a shank (30), two or more splines (see top portion of Fig. 15) displaced circumferentially around the head of the fastener and that are capable of configuring to a bone fastener ring (see Fig. 14B), and wherein it is functionally capable of rotating relative to the ring, as it is seated in the ring.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of the combination of Biedermann et al. and Crozet et al. having at least a screw head with splines capable of fitting with a ring, and a ring that has both grooves and a seat in view Schlapfer '090 to better secure the fastener to the collar portion of the device in use.

Response to Arguments

Applicant's arguments filed 10/15/2006 have been fully considered but they are not persuasive. It is still held that the features defined in Crozet et al. are splines and

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function as such. Further, the splines are able to cooperate with a ring, though specifically their action on the ring is a functional limitation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James L. Swiger whose telephone number is 571-272-5557. The examiner can normally be reached on Monday through Friday, 9:00am to 5:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on 571-272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 1/7/06

JLS


EDUARDO C. ROBERT
SUPERVISORY PATENT EXAMINER